

REMARKS

In the Office Action of January 23, 2006, the Examiner rejected claims 48-98 under several references that will be individually discussed in the sections below. Reconsideration of the application in view of the amendments is respectfully requested.

Section 112 Rejections

The Office asserts that the limitation, “substantially the same” in various claims, is not supported by the specification. Applicants respectfully traverse this rejection. Applicants submit herewith a Section 132 Declaration signed by Paul R. Sharps, one of the inventors of this application. The Declaration states that, in a chemical-vapor deposition process of the type described in this application, layer thicknesses are not “the same” because of variations caused by the deposition process. According to Mr. Sharps, “the nature of the deposition process inherently results in small variations both in composition and in thickness of each layer over the surface of the wafer.” Variations in thickness of 2-3 percent or more is normal and within manufacturing specifications. Therefore, it is not technically correct to state that the thickness or composition of two layers is “the same.” Those skilled in the art will understand the meaning of the term “substantially the same.” Applicants respectfully request the removal of this rejection.

The Examiner asserts that the limitation “at least one cell” in claim 67 is not supported by the specification. Applicants assert that claim 67 as amended satisfies the requirements of section 112.

The Examiner rejected claims 48-98 under 35 U.S.C. § 112, second paragraph, as being indefinite.

With respect to the “substantially the same composition and thickness” restriction, please see the argument presented above with respect to the first paragraph of section 112.

Applicants have amended the claims to change the “layers where each” phrase to read, “layers, wherein each.” Applicants assert that this amendment is fully supported by the specification. Applicants also assert that claims 48-98, as amended, satisfy all the requirements of section 112, second paragraph.

Section 102 Rejections

A) JP ‘397 Reference

The Office rejected claims 48-66, 68-70, 72-73, 75-78, 80, 84, 86-90, and 92-98 under 35 U.S.C. § 102(b) as being anticipated by JP ‘397. Applicants respectfully traverse this rejection.

The Office did not find Applicants’ previous arguments regarding identical sequences of layers persuasive. In particular, the Office seemed to pick out a first region and a second region such that the sequences of layers were identical in each region. Applicants have amended independent claims 65, 68, 77, 88, and 93 to clarify the meaning of those claims.

Applicants assert that, because all of the independent claims are distinct from the JP ‘397 reference, all of the pending claims (48-98) are allowable over JP ‘397 and respectfully request the removal of this rejection.

B) Taylor Reference

The Office rejected claims 48-66, 68-70, 72, 73-78, 80, 84-90, and 92-98 under 35 U.S.C. § 102(b) as being anticipated by Taylor, GB 2346010A. Applicants respectfully traverse this rejection.

The Office stated that Figures 1C and 1D and pages 5 and 6 of Taylor set forth the features of the instant solar cell semiconductor device. Applicants previously argued that the protection diode of Taylor does not appear to be electrically connected to the solar cell. The Office did not find those arguments persuasive. In the section titled Response to Arguments, the Examiner stated that Taylor's protective diode 11 and solar cell 5 share layer 7, which is electrically conductive and thus, the protective diode 11 and solar cell 5 are connected internally. Applicants respectfully disagree and point to page 5, line 13 of Taylor, which states that the trench in Figure 1C serves to "isolate" protection diode 11. In addition, page 5, line 16 specifically mentions external connection of protection diode 11. Even if layer 7 is considered connected to the solar cell, that means only one end of the bypass diode is connected to the solar cell, not both ends.

Applicants therefore assert that all of the pending claims are distinct from the Taylor reference and respectfully request the removal of this rejection.

C) Ho Reference

The Office rejected claims 65-92 under 35 U.S.C. § 102(b) as being anticipated by Ho et al., WO 99/62125. In the section titled Response to Arguments, the Examiner states, with respect to claim 60, that C-clamp 1442 is a layer and thus reads upon claim 60. Claim 60 as

amended recites that the metal layer is contained within the semiconductor structure. C-Clamp 1442 protrudes from the structure, as shown in Figure 14B. Thus, the C-clamp is not a deposited metal layer, and Applicant asserts that claim 60 and all claims that depend therefrom are allowable over Ho.

Applicants therefore assert that all of the pending claims are distinct from the Ho reference and respectfully request the removal of this rejection.

Section 103 Rejections

The Office rejected claims 48-98 under 35 U.S.C. § 103(a) as being unpatentable over Taylor in view of Marvin et al., and Lillington et al., U.S. Patent 5,853,497. For the reasons set forth above with respect to Taylor, Applicants assert that Taylor in combination with Marvin and Lillington fails to anticipate or render unpatentable any of the claims in the present invention for the reasons set forth above with respect to the section 102 rejections. Applicants respectfully requests the removal of this rejection.

The Office rejected claims 48-98 under 35 U.S.C. § 103(a) as being unpatentable over Ho et al., WO 99/62125. For the reasons set forth above with respect to the section 102 rejections, Applicants assert that Ho fails to anticipate or render unpatentable any of the claims in the present invention. Applicants respectfully requests the removal of this rejection.

CONCLUSION

Applicants assert that all of the claims in the present application are allowable over the cited references. If there are any additional charges concerning this response, please charge to White & Case LLP Deposit Account 50-3672.

A favorable consideration of the present amendment together with the original application is respectfully requested.

Respectfully submitted,

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By: 

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